CHANDLER FIRE DEPARTMENT

Plan Review Guide For Fire Sprinkler Systems

PROJECT NAME: _____ CITY LOG #: _____
PROJECT ADDRESS: _____ CONTRACTOR: _____
CONTACT PERSON: _____ TELEPHONE #: _____

Fire sprinkler system installation information shall be provided on the appropriate architectural drawings. A copy of this guide shall be attached to submitted drawings. **A review will not be conducted without this guide being submitted with the drawings.**

Plans are not required to be submitted for system additions or alterations involving less than 20 sprinkler heads, 40 feet of pipe, or 40 fittings; and the alteration or addition to the system; or the occupancy use does not change the hydraulic demand or density calculation requirements. All such work SHALL be performed by a contractor licensed by the State to do such work and who holds a current valid permit from the Fire Department to work within the City of Chandler

The following items shall be included on the drawings. Place initials beside each item to indicate information is included on or submitted with the drawings. Place N/R for items not required by the code. Place N/A for items non-applicable.

1. Indicate the type of system to be installed: NFPA 13__ 13R_____ 13D_____ Other_____

Place your initials beside the appropriate answer for items 2 through 5.

Yes___No___ 2.Will there be “in-rack”, “bin”, or “high piled” storage inside the building?
Yes___No___ 3.Will there be any STORAGE of flammable and/or combustible liquids within the building?
Yes___No___ 4.Will there be any USE, DISPENSING, OR MIXING of flammable and/or combustible liquids within the building?
Yes___No___5.Will there be any STORAGE, USE, DISPENSING, OR MIXING of any hazardous materials other than flammable or combustible liquids inside the building?

Place your initials beside each statement to indicate necessary information is included on or submitted with the plans.

6. Fire Department “General Notes to the Contractor: are provided on the plans.

7. Plans shall be drawn to an indicated scale, on sheets of uniform size, with a plan of each floor, and shall show those items from the following list that pertain to the design of the system:
   - _____ A. Name of owner and occupant.
   - _____ B. Name and address of contractor.
   - _____ C. Location, including correct street address.
   - _____ D. Point of compass.
   - _____ E. Full height cross section.
   - _____ F. Ceiling construction.
   - _____ G. Fire wall locations.
   - _____ H. Partition wall locations.
   - _____ I. Fire door locations.
   - _____ J. Unprotected window openings.
   - _____ K. Large unprotected floor openings.

_____ L. Location and dimensions of:
  _____ 1. Concealed spaces
  _____ 2. Bathrooms
  _____ 3. Attics
  _____ 4. Closets
_____ M. Any small enclosures in which NO sprinklers are to be installed.
_____ N. A legend list with descriptions.
_____ O. Detail of connection to the underground fire line.
_____ P. Shape of design area.
_____ Q. A sprinkler head table listing the manufacturer, model, orifice size, temperature rating, and protection area for each head type, and number of sprinkler heads per riser on each floor. Detail of connection to the underground fire line.
_____ R. The following in a "DESIGN CRITERIA" box:
  _____ 1. Hazard class
  _____ 2. Design density
  _____ 3. Design Area (sq. ft.)
  _____ 4. Number of sprinklers in design area
  _____ 5. Water supply data:
    _____ a. Test date and location
    _____ b. Flow PSI and GPM
    _____ c. Residual PSI
    _____ d. Static PSI
  _____ 6. Hose stream and in-rack sprinkler water allowance
  _____ 7. System demand:
    _____ a. PSI at riser
    _____ b. GPM at riser
_____ S. Pipe type and schedule of wall thickness.
_____ T. Type and location of hangers, sleeves, braces, and methods of securing sprinklers
_____ U. City main size and system elevation relative to flow test hydrant.

8. The Building Code occupancy class of each area or room in the building is indicated on the drawings.

9. Sprinkler heads are positions no closer than 4 inches to any wall, and no further from a wall that one-half the allowable distance between sprinklers.

10. The clear space below sprinklers is in accordance with NFPA 13.

11. The placement, location and contents of the spare sprinkler head cabinet is indicated on the drawings.

12. The type and locations of all control valves, check valves, and main and auxiliary drains are indicated and identified on the drawings.

13. The location and size of the inspectors test valve is indicated on the drawings.

14. The maximum floor area on any single floor, served by an individual riser, does not exceed NFPA 13 allowance.

15. The location and type of local water flow alarm is indicated on the drawings.

16. Cut sheet literature describing all system components are included as attachments; or component manufacturer, make, and model data is included on the drawings when the components are listed in the Underwriters Laboratories Inc. "Fire Protection Equipment Directory".

17. Sprinkler system installation under exterior combustible roofs or canopies exceeding four feet in width, attached to the building is indicated on the drawings.

18. Sprinkler head installation under ducts (more than 4 feet in width) is indicated on the drawings.

19. Sprinkler head installation for shade structure 3000 square feet or more is indicated on the drawings.

20. Third party monitoring of water flow is provided for systems with 20 or more sprinkler heads.

21. Fire hose valves and stations (when required or provided) are spaced so that all protected areas are within thirty feet of a nozzle when attached to not more than 100 feet of hose. Fire hose valves shall be 2- 2 1/2 male connections (NST) with gate valve. **No hose shall be attached**.

22. A detail of the hydraulic data nameplate is included on the drawings.

23. Calculations for hydraulically calculated systems contains the data required in accordance with NFPA 13.

24. Pursuant to Board of Technical Registration guidelines adopted March 17, 1989 sprinkler system design criteria has been accomplished by a registrant; and the submittal bears the registrants seal.